

REMARKS

This is in full and timely response to the above-identified Office Action. Reexamination and favorable reconsideration in light of the preceding amendments and the following argument, are respectfully requested.

Dependent claims 11 and 12 have been amended to reflect proper antecedent basis. Independent claims 1 and 36 have been amended to recite that the wood particles are washed and dried (and, in claim 36, neutralized). Independent claim 40 has been amended to make even more clear that the "filter aid" in the preamble should be regarded as a limitation of the claim. Independent claim 41 has been amended to recite a moisture content of the wood particles. Claims 42-55 have been added.

Rejections under 35 USC § 102

The rejection of claims 1, 3-7, 36,38-41 under 35 USC § 102(b) as being anticipated by Prusas is respectfully traversed for at least the following reasons.

~~The rejection is unclear.~~ In this rejection it is stated that "[T]he use of above **chips** as a filter aid is an intended use of the product." This is unclear as to whether the "above **chips**" refers to A) the **chips** disclosed in the Prusas reference, or B) is intended to refer to the preamble of claim 1 (for example). In either case the position is incorrect and is traversed.

A) In the event that this refers to the chips disclosed in Prusas, the position that they are intended for use as a filter aid is completely without merit. An electronic search of the Prusas reference reveals that it is totally devoid of the words "filter" and "aid" and most certainly the combination is not found. There is neither disclosure nor suggestion of any product produced by the Prusas process being used as a filter aid.

Prusas discloses at column 4, line 52 – column 5, line 4:

The process of the present invention can be used in pulping hardwood chips such as aspen, oak, maple, and birch chips. It can also be used on softwoods, but the advantages are less pronounced. The resulting hardwood pulp can be used as a substitute for more expensive chemical **pulps**. It is particularly adaptable for use as a

short-fiber pulp alone or in admixture with long fiber pulps in the manufacture of printing papers but can also be used as a component of, for example, **tissue or absorbent papers** or any other papers where hardwood chemical pulps are presently employed.

The chemithermomechanical **pulping** process of the present invention is characterized by a **two-stage chemical treatment** prior to refining wherein the hardwood chips are first **impregnated and reacted** with an alkaline liquor, squeezed or drained, and then **impregnated** with a sulfite or bisulfite liquor followed by a short cook. The alkaline treatment is usually carried out under ambient temperature and pressure conditions. The sulfite treatment is carried out under relatively mild CTMP conditions.

It therefore clear that the process which is disclosed in this reference is directed to producing, at the very best, absorbent paper and that the chips are merely a precursor to the conversion of wood into pulp for this purpose.

B) To the extent the office action is referring to the preamble of applicant's claims, the office action is improperly declining to accord applicant's preamble its proper weight.

MPEP 2111.02 Weight of Preamble

"[A] claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). "If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim **preamble is 'necessary to give life, meaning, and vitality' to the claim**, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161,

1165-66 (Fed. Cir. 1999). See also *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951) (A preamble reciting "An abrasive article" was deemed to point out the invention defined by claims to an article comprising abrasive grains and a hardened binder and the process of making it. **The court stated "it is only by that phrase that it can be known that the subject matter defined by the claims is comprised as an abrasive article.** Every union of substances capable inter alia of use as abrasive grains and a binder is not an `abrasive article.'" Therefore, the **preamble served to further define the structure** of the article produced.). (Emphasis added)

As noted above, the preamble is not given the effect of a limitation ~~unless it breathes life and meaning~~ into the claim. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." *Kropa v. Robie*, 88 USPQ 478, 481 (CCPA 1951).

In this instance the preamble does in fact breathe life and meaning into the claim by pointing out the invention defined by the claims.

In claims directed to articles and apparatus, any phraseology in **the preamble that limits the structure of that article or apparatus must be given weight.** *In re Stencel*, 4 USPQ2d 1071 (Fed. Cir. 1987). (Emphasis added) It is advanced that "filter aid" is a structure and that the preambles of the independent claims limit the structure of the apparatus/structure claimed.

As established in *In re Spada*, 911 F.2d 705, 708, 15 U.S.P.Q.2D (BNA) 1655, 1657 (Fed. Cir. 1990) (in order to anticipate, "the [prior art] reference must describe the applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it"). Therefore, the question is whether the Prusas reference places the person of ordinary skill in possession of a filter aid. The answer is, of course, that it does not. Therefore, the intermediary product found in Prusas does not amount to disclosure of a filter aid and therefore cannot anticipate the

claimed filter aid. This is particularly the case with independent claim 40, wherein there is an explicit nexus between the preamble and the body of claim. Amended claim 40 reads:

A filter aid, for use as a beverage filtering prefloat filter layer, comprising:
finely divided lignin-containing wood particles treated with
a dilute alkali solution at a temperature below
100°C and at atmospheric pressure, to a degree:
a) sufficient to remove the sensorially active
substances from the wood particles,
b) insufficient to quantitatively extract lignin from
the wood particles, and to
c) leave the wood particles as loose wood particles
with a wood character **adapted to filter a
beverage in the beverage filtering
prefloat filter layer.**

The rejection has also not addressed the "adapted to" limitation. See In re Dean 130 U.S.P.Q. 107, 111 (CCPA 1961) ("adapted to" clause in a limitation of claim element). The anticipation rejection of the above noted claims is therefore traversed.

It is further submitted that the "washing and drying" and the "washing, neutralizing, and drying" limitations in independent claims 1 and 36, respectively, further distinguish those claims and their dependent claims from Prusas. It is clear that the ongoing process of Prusas is not going to permit the chips to be "dried" before being subjected to the sulphite process inasmuch as it would be redundant if not wasteful in the Prusas process. Re-wetting in preparation for the sulphite treatment would be necessary and would not be carried out. Moreover, regarding claim 36, Prusas does not disclose a neutralization process being applied to the intermediate wood. Claim 41 has been amended to broaden the limitation in the preamble, and to add a moisture content limitation not disclosed in Prusas.

Rejections Under 35 USC § 103

- 1) The rejection of claims 2, 13-14 and 37 under 35 USC § 103(a) a being unpatentable over Prusas is traversed.

In order to establish a *prima facie* case of obviousness, it is necessary to show that the hypothetical person of ordinary skill would, without any knowledge of the claimed subject matter and without any inventive activity, be able to arrive at the claimed subject matter given the guidance of the cited references when each is fully considered.

The claimed subject matter is directed to a filter aid. The subject matter of Prusas is directed to a pulping process. There is nothing in the Prusas reference to suggest that wood chips, which are produced as an intermediary product during the pulping process, could be arbitrarily extracted from the process and used for a purpose totally unrelated to that which the Prusas invention is directed.

This rejection lacks proper motivation. The rejection bootstraps off the anticipation rejection and ignores the need to establish why the hypothetical person of ordinary skill would be moved to consider the intermediate product of Prusas as a filter aid. The rejection incorrectly assumes that the hypothetical person would not be influenced by the teachings of this reference which clearly are directed toward producing paper pulp. The rejection incorrectly assumes that the hypothetical person of ordinary skill would suddenly decide that the wood chips that have been exposed to alkali would be useful for filtering. There is simply nothing available to prompt the thinking of the hypothetical person of ordinary skill in this direction.

The above traverse is founded on the fact that rejections based on 35 USC § 103, are based on the premise that the test for patentability under § 103 is whether the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. *Panduit Corp. v. Dennison Mfg. Co.*, 1 U.S.P.Q.2d 1593, 1597 (Fed. Cir.), cert. denied, 481 U.S. 1052 (1987). During the examination process, the PTO has the burden under § 103 to establish a *prima facie* case of obviousness. *In re Oetiker*, 24

U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992). Applicant is therefore entitled to a patent unless the Examiner establishes prima facie that the differences between the prior art and the claimed invention would have been obvious within the meaning of § 103.

The art is also Non-analogous

The rejection is untenable in that the Prusas reference does not relate to filter aid production/structure and is non-analogous.

Two criteria have evolved for determining whether prior art is analogous or not. The first of these criteria is whether the art is from the same field of endeavor, regardless of the problem addressed. The second of the two criteria is, if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent of the particular problem with which the inventor is involved. *In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed.Cir. 1986); *In re Wood* 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979).

If the above two criteria are applied to the instant rejection the following two questions must be asked.

- i) Is the art is from the same field of endeavor?

No - It is submitted that the Prusas reference which discloses a chemithermomechanical pulping process employing separate alkali and sulfite treatments is not from the same field of endeavor as producing filtering materials and in particular a filter aid.

- ii) Is the reference still reasonably pertinent of the particular problem with which the inventor is involved?

No - It is submitted that the problem with which the inventor is involved is producing a filter aid which can be provided economically and which can be disposed of after use without impacting the environment in the manner encountered with the disposal of kieselguhr (categorized by the WHO as a carcinogenic substance in 1988). Clearly Prusas is not directed to this problem but to producing paper products.

It must therefore be concluded that Prusas is non-analogous with respect to the claimed subject matter, and it must therefore be concluded that the obviousness rejection is untenable and must be withdrawn.

- 2) The rejection of claims 8-12 under 35 USC § 103(a) as being unpatentable over Prusas further in view of Hou (USP 4,488,969), is respectfully traversed.

In this rejection it is stated that claims 8-12 essentially differ from the product of Prusas in reciting a filter active fraction including kieselguhr and perlite. To overcome this acknowledged shortcoming, Hou is cited and relied upon to teach a filter media sheet comprising cellulose fibers of different beaten pulps; perlite; and silica.

However, this rejection cannot be taken as being tenable. Proper motivation for the combination has not been established. Indeed, the hypothetical person of ordinary skill has no way of determining, based on the disclosure of Prusas and Huo, that an intermediate product should be arbitrarily plucked out of the disclosure of Prusas, which, as noted above, is not directed to filtering aid or the like, and that this intermediate product should be combined with a fibrous filtering media containing millimicron-sized particles of the nature disclosed in Hou.

Further, the Huo arrangement is directed to a filter arrangement which discloses the use of wood or cellulose pulp. Attention is again called to the fact that once wood is converted into pulp it is no longer wood and has been irreversibly converted to a different material.

Huo at column 4, line 57 – column 5, line 8 discloses:

By "self-supporting fibrous media" is meant to include any coherent **matrix of fibers** which will maintain its shape and form when in the dry state, i.e., will not fall apart. In its most common form the self-supporting fibrous media is a sheet made from at least one component which is a long, self-bonding structural fiber, to give the sheet sufficient structural integrity in both the wet "as formed," and in the final dried condition, and also to allow handling during processing and suitability for the intended end use.

Cellulose fibers such as **wood pulp**, cotton, cellulose acetate or rayon can be used. These fibers are typically relatively large, with **commercially available diameters in the range of six to sixty micrometers**. **Wood pulp**,

can also be used, and has fiber diameters ranging from fifteen to twenty-five micrometers, and fiber lengths of about 0.85 to about 6.5 mm. (Emphasis added).

It is clear that the "intermediate" chips from Prusas could not be used for this purpose and that the use of pulp fibers having the above mentioned length and diameters would be necessary. The teaching purported to be obvious in this rejection would not be made and a prima facie case of obviousness could not be established. See also paragraph 14 of the Dr. Gerdes declaration submitted with applicant's response of October 29, 2002.

New Claims

New claims have been added. These claims are supported by the original disclosure and claims and are patentable over the art at least for the reasons discussed with respect to their respective independent claims.

Independent claim 55 calls for a beverage and a filter aid for filtering the beverage. This is clearly novel in light of Prusas and is non-obvious in light of Prusas taken with Hua for at least the reasons advanced above.

It is submitted that the art of record neither discloses nor suggests the subject matter set forth in any of the new claims.



Conclusion

It is submitted that neither a *prima facie* case of anticipation nor obviousness has not been established for at least the reasons advanced above. Favorable reconsideration and allowance of the pending and newly added claims are courteously solicited.

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